CLAIMS

1. Active ingredient matrix in the form of a biologically resorbable, porous nonwoven of collagen fibrils in lyophilized form with a retarded release of active ingredients, containing at least one homogeneously distributed active ingredient difficultly soluble in water and body fluids, which, apart from the collagen fibrils as the carrier structure and the at least one active ingredient, is substantially free from further constituents, which is substantially free from salt and in the at least one active ingredient in physiological medium has a solubility of < 10 mg/ml.

2. Active ingredient matrix according to claim 1, characterized in that it has a layer thickness of 0.5 to 15 mm, particularly 2 to 5 mm.

3. Active ingredient matrix according to claim 1 or 2, characterized in that it has a density of 12 to 180 mg/cm^3.

4. Active ingredient matrix according to one of the claims 1 to 3, characterized in that it has a pore volume of 60 to 80% of the total volume.

5. Active ingredient matrix according to one of the preceding claims, characterized in that it has an average pore size in the range 20 to 150 µm.

6. Active ingredient matrix according to one of the preceding claims, characterized in that it has an air permeability of 2500 to 5000 ml/cm^2/min, particularly 2700 to 3400 ml/cm^2/min, for a layer thickness of 4.2 mm.

7. Active ingredient matrix according to one of the preceding claims, characterized in that the at least one difficultly soluble active ingredient is a medicament, particularly an antibiotic.

8. Active ingredient matrix according to claim 7, characterized in that as the antibiotic are used aminoglycoside antibiotics, particularly clindamicin-palmitate, clindamicin-palmitate hydrochloride and/or gentamicin-crobefat.

9. Active ingredient matrix according to one of the preceding claims, characterized in that in addition to the at least one difficultly soluble active ingredient, it contains at least one less difficultly soluble or easily soluble active ingredient.

10. Method for the manufacture of biodegradable active ingredient matrix in the form of an open-cell nonwoven or sponge of uncrosslinked, resorbable

collagen fibrils, particularly for the manufacture of an active ingredient matrix according to one of the preceding claims, characterized in that pieces of cleaned, degreased and dried hide are allowed to swell in dilute, aqueous solutions of organic acids until an elastic material is obtained, the swollen pieces are rinsed several times with aqueous media, particularly demineralized water until the pH-value is increased, the rinsed pieces are mechanically separated into fibres for forming a suspension of collagen fibrils, the pourable collagen suspension having a pH-value of > 3.5 to < 4.8 is mixed with at least one difficultly soluble active ingredient in finely divided form and homogenized and the active ingredient-containing suspension is then lyophilized to the nonwoven or sponge.

11. Method according to claim 10, characterized in that the concentration of the organic acid used for swelling and the number of rinsing operations are chosen and matched to one another in such a way that following the rinsing and separation into fibres, without prior pH-correction, a collagen suspension is obtained with a pH-value of > 3.5 to < 4.8, particularly 4 to 4.5.

12. Method according to claim 10 or 11, characterized in that the rinsing operation covers at least two, particularly at least five rinsing cycles.

13. Method according to claim 11 to 12, characterized in that rinsing is performed for 5 to 60 hours, particularly 6 to 48 hours.

14. Method according to claim 11 to 13, characterized in that for swelling purposes use is made of an acid solution with an acid concentration of 0.01 to 2 N, particularly 0.05 to 0.5 N.

15. Method according to claim 11 to 14, characterized in that the hide portions are swollen in the organic acid to 3 to 10 times, particularly 4 to 8 times their weight.

16. Method according to claim 11 to 15, characterized in that, after rinsing and removing the rinsing water, the swollen collagen granulate is transformed by the addition of water into a 0.1 to 10% mixture, based on the dry collagen material weight and this mixture is homogenized by dispersion to the collagen suspension, the fibre union of the collagen fibrils being broken.

17. Method according to claim 11 to 16, characterized in that the at least one difficultly soluble active ingredient is added in finely divided form, particularly suspended in an aqueous medium.

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18. Method according to one of the claims 11 to 17, characterized in that the suspension of the collagen fibrils, following the addition of the at least one difficultly soluble active ingredient, is homogenized for uniform distribution of the at least one active ingredient in the suspension.

19. Method according to claim 11 to 18, characterized in that apart from the at least one difficultly soluble active ingredient, at least one less difficultly soluble active ingredient, preferably with the same action direction is added.

20. Method according to claim 11 to 19, characterized in that the homogenized, active ingredient-containing collagen suspension is lyophilized without any further intermediate treatment to in particular areal nonwovens or sponges.

21. Use of the active ingredient matrix according to one of the claims 1 to 9 as an implantable and completely resorbable depot for active ingredients with a retarded active ingredient delivery.